

### **REMARKS**

Claims 1-105 are currently pending in the application. Claims 1, 10, 19, 28, 29, 37, 38, 46, 55, 65, 74, 83 are amended. The amendments find support in the specification and are discussed in the relevant sections below. No new matter is added.

#### **Rejections Under 35 U.S.C. §112, Second Paragraph:**

Claims 1-54 are rejected as indefinite under 35 U.S.C. §112, second paragraph.

The Office Action states that claims 1, 10, 19, 28, 37 and 46 are vague and indefinite because “it is disclosed that X is a leaving group but the formula does not comprise ‘X’” and that “the confusion is that it is unclear if X is part of X<sub>1</sub> and X<sub>2</sub> or a totally different moiety.”

Applicants have amended claims 1, 10, 19, 28, 37 and 46 to recite “at least one of X<sub>1</sub> or X<sub>2</sub> is a leaving group” thereby providing proper antecedent basis. Support for the amendment is found throughout the specification, for example, at page 35, lines 10-11. No new matter has been added.

Applicants have amended claim 55 to replace X<sub>1</sub> with X to correct a self evident typographical error and provide proper antecedent basis. No new matter has been added.

#### **Claim Objections:**

The Office Action points out that the group “No<sub>3</sub>” should be written “NO<sub>3</sub>” in claims 2, 11, 29, 38, 65, 74 and 83. Applicants have amended claims 29, 38, 65, 74 and 83 to replace No<sub>3</sub> with NO<sub>3</sub> to correct the self-evident typographical error. No new matter has been added. Applicants respectfully submit that the group “NO<sub>3</sub>” is written correctly in claims 2 and 11 as filed and no amendment is necessary.

Rejections Under 35 U.S.C. §102(b)

Houthoff, et al.

Claims 55-63, 73-81, 91-105 are rejected under 35 U.S.C. §102(b) as being anticipated by Houthoff et al. The Office Action states that “Houthoff discloses methods for labeling nucleotides which involves using linker platinum compounds” and that “the formula (I) in page 3 [of Houthoff] is viewed to be inclusive of the instant invention wherein X represents any stabilizing bridge and wherein A and B are the same or different reactive moieties.” The Office Action further states that “the linker compounds comprise X which represents an aliphatic diamine having 2-6 carbon atoms, which is viewed to be inclusive of cyclohexyl moieties for example.” Applicants respectfully disagree.

Applicants submit that an “aliphatic diamine” does not include cyclic moieties as shown in the structures recited in independent claims 55, 73 and 91, because the term “aliphatic” does not include cyclic moieties. Below is a definition of “aliphatic” excerpted from *Hawley’s Condensed Chemical Dictionary*, 14<sup>th</sup> Ed., Richard J. Lewis Sr. Ed., John Wiley & Sons, Inc., 2001.

**aliphatic.** One of the major groups of organic compounds, *characterized by straight- or branched- chain arrangement* of the constituent carbon atoms. Aliphatic hydrocarbons comprise three subgroups: (1) paraffins (alkanes), all of which are saturated and comparatively unreactive, the branched-chain types being much more suitable for gasoline than the straight-chain; (2) olefins (alkenes or alkadienes), which are unsaturated and quite reactive; (3) acetylenes (alkynes), which contain a triple bond and are highly reactive. In complex structures, the chains may be branched or cross-linked. (Emphasis added)

Because Houthoff et al. do not teach a bridge comprising a cyclic moiety as in the structures claimed by Applicants, it is submitted that the reference does not teach every element of the claims and therefore does not anticipate claims independent claims 55, 73 or 91 or any of

claims 56-63, 74-81, or 92-105 that depend from them. Applicants respectfully request reconsideration and withdrawal of the rejection.

Rejections under 35 U.S.C. §103(a):

Houthoff, et al. in view of Lippard, et al.

Claims 1-105 are rejected as obvious under 35 U.S.C. §103(a) over Houthoff, et al. (WO 98/15564) in view of Lippard, et al. (U.S. Patent No. 4,843,161). The Office Action states that “Lippard, et al. discloses a compound of formula (I) which comprises dichloroethylenediamine-platinum having a linker attached to the ring nitrogen said linker is attached to a label.” The Office Action also states that Lippard et al. teaches “preferred molecular bridges are an alkyl chain, polyamine chain, polyether chain or the like, which can be of variable length and composition which is viewed to be inclusive of the aromatic ring of instant claim 1 for example.” The Office Action concludes that “it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use platinum compounds comprising label attached either to ring nitrogen [sic] via a linker as taught by Lippard.” Applicants respectfully disagree.

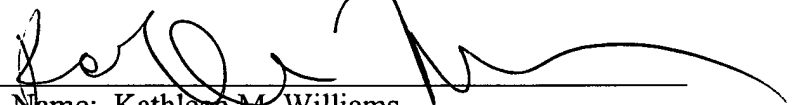
As discussed above, Applicants submit that the Houthoff et al. reference does not teach or suggest a cyclic moiety joining the nitrogen atoms as is required in *all* of the present claims. Not only is there no teaching or suggestion in Houthoff of a cyclic moiety joining the nitrogen atoms, there is no teaching of an aromatic cyclic ring moiety joining the nitrogen atoms as in, for example, independent claims 1 and 64. Applicants submit that the teachings of Lippard et al. do not remedy these deficiencies because Lippard et al., like Houthoff et al., does not teach or suggest a cyclic moiety joining the nitrogen atoms as required in *all* claims, let alone an aromatic ring-containing moiety as shown in claims 1 and 64. Applicants submit that “an alkyl chain, polyamine chain, polyether chain or the like,” as taught by Lippard et al., is not inclusive of an aromatic ring or any ring for that matter. Because neither Houthoff et al. nor Lippard et al., alone or in combination, teach or suggest every element of Applicants’ claimed invention, independent claims 1, 10, 19, 28, 37, 46, 55, 64, 73, 82, and 91 and the claims that are dependent

from them cannot be obvious over any combination of these references. Applicants respectfully request reconsideration and withdrawal of the rejection.

In view of the above, Applicants submit that all issues raised in the Office Action have been addressed herein. Applicants respectfully request reconsideration of the claims.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Kathleen M. Williams', is written over a horizontal line.

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